

[FULLY SECURE IDENTIFICATION AND TRANSMISSION SYSTEM]

Abstract of Disclosure

A system and apparatus for creating and administering fully secure identification procedures, to ensure that informational or transactional messages are sent over the network by authorized persons and for transmitting fully secure messages and files over an unsecure networks. A recipient of the message requests the sender to initiate the secure identification procedure using the sender's secure identification apparatus and, simultaneously, notifies the verification station that the request was initiated. The sender identifies himself or herself to the authority via the secure identification apparatus and the authority notifies the recipient whether the identification process was completed successfully by issuing an identification certificate. In addition, the sender may use a modified apparatus to send an encrypted and hashed message (any file in any agreed upon format) to the verification station. The message is encrypted by the modified apparatus and is decrypted by the verification station. The decrypted message contains the information necessary to forward the message to the recipient. The verification station re-encrypts and hashes the message using encryption that may be decoded only by the recipient's modified apparatus. The system relies on user-provided physical security (denial of access to the apparatus), utilizes single use certificates and the "one time pad" encryption mechanism to eliminate the possibility of electronic theft.

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